WHAT IS CLAIMED IS:

1.   A computer-implemented method for processing a computer program during run-time, the program including byte codes, the byte codes being arranged as a plurality of methods, the computer-implemented method comprising:

5   invoking a first method selected from the plurality of methods, wherein invoking the first selected method includes interpreting the first selected method;

updating an invocation tracker arranged to track a number of invocations of the first selected method;

determining when the invocation tracker indicates that the number of 10   invocations of the first selected method exceeds a threshold value; and

compiling the first selected method when it is determined that the invocation tracker indicates that the number of invocations of the first selected method exceeds the threshold value.